By mistake, in this volume the pages 57 to 60 are appearing twice but do contain different articles. This should be considered when using the index.

AUTHOR'S INDEX

A
Adadevoh, B.K. 136
Adlkofer, F. 129
Ahuja, M.M.S. 321
Åkerblom, H.K. 15
Albin, J. 463
Alm, B. 195
Anazawa, W. 458
Andrade, L.L. 373
Andreani, D. 55
Asfeldt, V.H. 57
Asplund, K. 159
Assa, S. 187
Assan, R. 168, 317
Aubert, M.L. 470

B
Bailey, C.J. 266
Barlet, J.P. 300, 315
Barnett, D. 257
Batchelor, B.R. 87
Baumann, J.B. 224
Beckers, C. 406
Behrman, H.R. 206
Bellabarba, D. 501
Bellwinkel, S. 60
Bénard, B. 501
Benuzzi-Badoni, M. 293
Berger, W. 311
Bernardis, L.L. 328
Bessman, S.P. 413
Bette, H. 454
Beyer, R.E. 1
Bielmann, P. 22
Björntorp, P. 182
Böckel, K. 403
Bolt, H.M. 312
Bolzano, K. 439
Bonnyns, M. 132
Bonorris, G. 64
Boquist, L. 426
Bornstein, J. 222, 309
Boyett, J.D. 163
Braceland, B. 304
Braunsteiner, H. 439
Brech, W.J. 454
Brinkløv, M. 8
Brodoff, B.N. 310
Brown, F.A. 43
Bruno, O.D. 202, 280
Buchanan, K.D. 507
Burzio, L. 273
Buu-Hoi, N.P. 119

C
Cammani, F. 128
Capuzzi, D.M. 176
Care, A.D. 315
Carratù, R. 55
Cession-Fossion, A. 355
Chakmakjian, Z.H. 190
Chambaut, A.M. 254
Chandra, P. 271
Chlouverakis, C. 143
Chrétien, M. 22, 495
Classen, M. 226
Cohen, M.P. 249
Conte, N. 48
Copinschi, G. 202, 280
Cornette, C. 406
Czap, B. 313

D
Daweke, H. 368
Dascàlu, R. 101
Davidson, M.B. 64
Debry, G. 509
Deckert, M. 229
Deckert, T. 229
Delling, G. 59
Demartini, A.J. 371
Demling, L. 226
Denes, A. 311
Dennebaum, R. 383
Dieterle, C. 54
Dieterle, P. 54
Ditzel, J. 8
Domschke, S. 226
Domschke, W. 226
Duckworth, W.C. 133
Dumont, C. 217
Durrer, H.A. 213

E
Eales, L. 467
Eastman, C.J. 58
Elkeles, R.S. 178

F
Fáberová, A. 493
Fabian, E. 121
Faix-Schade, V. 62
Falluca, F. 55
Foà, P.P. 34, 242
Fehm, H.L. 477
Federspil, G. 48
Felber, J.-P. 25, 293, 470
Feller, H. 271
Franchimont, P. 288
Frandsen, E. 360
Fraser, T.R. 72, 210, 257
Freinkel, N. 508
Frezzato, S. 48
Fröhlich, J. 171
Frohman, L.A. 328
Frölich, M. 407
Fung, J. 222

G
Gagliardino, J.J. 278
Galton, D.J. 325
Garay, G.L. 15
Garel, J.M. 131, 217
Garg, V.K. 321
Gasde, K. 395
Gattereau, A. 22, 501
Gavazzi, G. 484
Genazzani, A.R. 293, 470
Genest, J. 495
George, E.P. 409
Gillan, D.J. 304
Gillessen, D. 484
Girard, J. 168, 224
Glick, S.M. 463
Gmeiner, K.H. 54
Göbel, P. 312
Goldberg, V. 371
Goldfine, I.D. 97
Goldman, J.K. 328
Goto, Y. 458
Grecu, E. 101
Greep, R.O. 206
Gries, F.A. 368
Griffith, D.R. 380
Grimby, G. 182
Grinblat, L. 249
Gross, M.D. 1
Grote, G. 403
Grüneklee, D. 368
Guisard, D. 509
Gulbenkian, A. 57
Gutmann, I. 110
Guttman, R. 325

H
Hainer, V. 314
Halperin, H. 30
Hanoune, J. 254
Hansen, Aa.P. 11
Hanssen, K.F. 57
Harris, S. 1
Harper, G. 507
Hauss, W.H. 403
Heding, L.G. 360
Heersche, J.N.M. 407
Hehrmann, R. 59
Heinze, E. 234
Hellerström, C. 159
Henner, J. 54
Herz, G. 224
Hessing, J. 368
Heymans, G. 58
Hiatt, N. 64
Hieu, H.T. 119
Hinz, M. 377
Hofert, J.F. 163
Hoffmann, G. 383
Hölzel, F. 395
Holzmann, H. 383
Horster, F.A. 368, 482
Hrubesch, M., 403
Howell, S.L. 349

I
Ishibashi, S. 77
Ito, K. 458
Izurieta, E.M. 30

J
Jacobs, L. 508
Jacquemin, Cl. 149
Jaffer, A. 508
Javicoli, M. 55
Jørgensen, K.H. 223
Jürgens, H. 129

K
Kagan, A. 310
Káldor, A. 225
Kanazawa, Y. 421
Karp, M. 284
Katsilambros, N. 377
Kilbert, Jr., L.H. 242

Kirsteins, L. 97
Kissebah, A.H. 72
Kitabchi, A.E. 133
Klipper, I. 187
Knopp, J. 493
Kobilková, J. 121
Koide, S.S. 273
Kowadlo-Silbergeld, A. 187
Kraegen, E.W. 409
Krieger, D.T. 463
Krishna, G. 447
Křížek, V. 51
Krulich, L. 314
Kubik, V. 314

L
Lambert, B. 149
Langston, L.K. 190
Laron, Z. 93, 187, 284
Larsen, U.D. 223
Lauffenburger, Th. 311
Lauridsen, U.B. 229
Lauvaux, J.P. 58
Lawrence, A.M. 97
Lazarus, L. 58, 409
Leclercq, R. 202, 280
Lefebvre, P. 355
Legros, J.J. 288
Lemberg, A. 30
Lemberg, P.M. 30
Lemkes, H.H.P.J. 407
Leppäluoto, J. 506
Ling, G.M. 313
Lippert, H. 110
Lipshaw, L.A. 34
Lloyd, H.M. 392
Lockwood, D.H. 232
Löw, H. 195
Lukanmbi, F.A. 136
Lundquist, I. 151, 245, 341
Lundqvist, G. 83, 237
Luyckx, A. 355
Lybeck, H. 506

M
Macho, L. 125
MacManus, J.P. 304
Madsen, S.N. 229
Mahler, R.J. 87, 139
Maier, V. 377
Mandart, G. 58
Margolis, S. 176
Marks Jr., S.C. 296
Marks, T. 467
Martin, J.M. 15
Martini, L. 484
Markussen, J. 56, 360
Massara, F. 128
Matty, A.J. 266
Mauss, J. 128, 386
McDaniel, E.G. 43
Meares, J.D. 392
Menzinger, G. 55
Meurice, J. 288
Meyer, U. 107
Minne, H. 60
Misbin, R.I. 176, 232
Mitroo, P. 321
Mitzkat, H.J. 107
Miura, S. 273
Mogensen, C.E. 11
Montz, R. 59
Morsches, B. 383
Moscarello, M. 15
Mühlen, A. von zur 129
Murakami, K. 77

N
Nakamura, H. 458
Nars, P.W. 224
Neumann, M.P. 30
Ng, F., 222, 309

O
Oertel, G.W. 383
Okajima, S. 458
Oliver, C. 364
Ooms, H.A. 58
Orii, H. 271
Ornstein, L. 57
Osterman, J. 433

P
Paget, S. 463
Paglione, A.M. 30
Palkovič, M. 125, 493
Parisier, H. 371
Parvez, H. 398
Parvez, S. 398
Patent, G.J. 34
Pathomvanich, O. 488
Pertzelan, A. 284
Petry, R. 386
Pfeiffer, E.F. 377, 477
Piemonte, G. 48
Pimstone, B.L. 467
Piva, F. 484
Pogátsa, G. 225
Pokrajac, N. 433
Pozo, E. del 388

R
Rabkin, R. 467
Raheja, K.L. 39, 69, 337
Raman, A. 104
Rausch-Stroomann, J.-G. 386
Rebolledo, O.R. 278
Reinwein, D. 213
Renauld, A. 373
Rodriguez, R.R. 373
Rojo-Ortega, J.M. 495
Ruedi, B. 470

S
Sahadevan, V. 210
Sailer, S. 439
Sandhofer, F. 439
Sanne, H. 182
Scandellari, C. 48
Scharf, A. 93
Schams, D. 405
Schatz, H. 377
Schaub, J. 110
Schiff, M.S. 242
Schleusener, H. 129
Schmidtchen, D. 60
Schönhöfer, P.S. 447
Schultz, R.D. 413
Schulz, K.-D. 395
Schwarz, K. 54
Sciegata, M.A. 371
Shigeno, K. 458
Sibinovic, K.H. 43
Singhal, R.L. 313
Sirito 371
Sivaji, L. 321
Sjöström, L. 182
Skibinsky, J. 371
Skidmore, I.F. 447
Snedecor, J.G. 39
Solbach, H.G. 404, 482
Sponarová, J. 121
Stahl, M. 224
Steiner, H. 484
Steinke, J. 234
Steinmetz, J.A. 331
Stoilov, S. 314
Stork, A. 121
Story, J.A. 380
Studer, R.O. 484
Sundby, F. 56, 360
Sutter, B.Ch.J. 149
Sverdlik, R.C. 373
Szabo, A.J. 139
Szabo, O. 139
Szanto, S. 417

T
Tabachnick, I.I.A. 57
Taft, P. 222, 309
Tamburrano, G. 55
Tassopoulos, C.N. 257
Tchobroutsky, G. 317
Teale, J.D. 507
Tepperman, J. 69, 337
Tepperman, H.M. 69, 337
Thalasso, M. 406
Thesingh, C.W. 407
Thomas, F.J. 392
Thomas, J.A. 313
Tibblin, G. 182
Track, N.S. 421
Trisotto, A. 48

U
Uher, L. 129
Utiger, R. 508

V
Vague, J. 364
Vague, P. 364
Vanhaelst, L. 132
Veigel, J. 62
Verdy, M. 501
Vermeulen, A. 386
Vestergaard, P. 8
Virkkunen, P. 506
Voigt, K.H. 477
Vought, R.L. 43

W
Wacker, A. 271
Wagner, H. 403
Walker, M.J.A. 488
Wakamatsu, H.O. 458
Wehner, H. 62
Wehner, I. 62
Werner, S. 195
Whitfield, J.F. 304
Whitfield, M. 349
Wiegelmann, W. 404, 482
Wiegrefe, K. 107
Wieland, O. 171
Wikinski, R.L. 30
Wilander, E. 426
Wilber, J. 508
Wildmeister, W. 368, 482
Wilhelmsen, L. 182

Y
Yen, T.T. 331
Young, J.D. 409
Yudkin, J. 417

Z
Zaragoza, N. 293
Zaragoza-Hermans, N. 25
Zegreanu, O. 101
Ziegler, R. 60, 377
Zimmet, P. 222, 309

By mistake, in this volume the pages 57 to 60 are appearing twice but do contain different articles. This should be considered when using the index.

SUBJECT INDEX

A

Acetohexamide 61
Acetone bodies, extrahepatic utilisation 20
– – in blood of tumor bearing rats 15
Acetyl-CoA 6
– – in adipose tissue 454
Acid amyloglucosidase 151, 341
– – activity 245
Acromegaly 87, 101, 470
– glomerular filtration rate 14
– glucagon response 97
– in rats bearing the MtT-W15 Tumor 15
Acromicria 93
ACTH-β^{1-24} 202
– activity of lipotropin 23
– adrenocortical responsiveness 280
– "binding factor" 477
– cholesterol ester hydrolase 206
– effect on glycerokinase 125
– LH-releasing hormone and 403
– pituitary diseases 470
– radioimmunoassay 364, 477
– secretion in man 364
Addison's disease 101
Adenine, effect on glucose uptake 225
Adenohypophyseal function, influence of thyrotropin releasing factor 58
Adenylcyclase, adipose tissue 72
– isolated rat liver cells 176
– liver, allosteric portion 33
– rat fat cells 447
– system 33
Adipose tissue, adenyl cyclase 72
– – effect of growth hormone on insulin sensitivity 87
– – fat cell size 182
– – formation of estrogens 312
– – glucose metabolism 178
– – glycolytic intermediates 325
– – in diabetics 72
– – lipolysis and calcium uptake 195
– – phosphodiesterase 72
– – production of cyclic AMP 72
ADP 1
Adrenal cortex and catecholamine degradation 398
Adrenocortical sensitivity 280
Adrenal gland 125, 206
Adrenalectomized rats 163
Adrenalectomy, gastric secretion 226
– lipolysis and calcium uptake 195
Adrenaline 176
– urinary excretion 398
Adrenergic receptors 33
Adrenocortical sensitivity 202
Alpha-cells, pancreatic 2
Alpha-2-cell degeneration 426
Alphacytotrophic action of growth hormone 99
Alloprenalol 30
Alloxan diabetes 151, 245
– in rats 254
Amenorrhea, in anorexia nervosa 404
Amino acids and growth hormone secretion 14
– – and insulin secretion 159
– – composition of glucagon 56
Aminoacyl-sRNA 249
6-aminochrysene 119
Amyloglucosidase 151
Androgens 121, 129
– formation of estrogens 312
– hypercholesterinemic effect 39
Anephric rats 467
Angiopathy 10
Angiotensin 495
– II 210
Anorexia nervosa, LH-releasing hormone 404
Antiandrogens 386
Antibodies to glucagon in a diabetic child 224
– to insulin, effect of azathioprine 62
Antiinsulin serum 29
– – obese mice 331
Arachidonic acid 36
Arginine and glucagon response 97
– insulin secretion of isolated islets 234
– insulins 425
Artificial pancreas 413
Aspergillus niger 153
Asthma, corticoid treatment 280
ATP 1
– enzymatic prerequisites for formation 237
– increased turnover in skeletal muscles 6
– in granuloma tissue 77
– lowered ATP in diabetes mellitus 1
ATP-ase 1
ATP-$^{32}P_i$ 6
Atria of rat hearts 488

B

Basement membrane, width in capillaries 8
B-cells in fetal pancreata 159
Benz[α]anthracene 119
Benzothiadiazine 57
Beta blocking agents 30
Beta cells, pancreatic
– streptozotocin 2, 349
– degeneration 426
– oxidation of long chain fatty acids 3
– receptors, glycogenolysis 33
Bicycle ergometer 11
Biguanides, glucose metabolism in adipose tissue 181
– Vitamin B_{12} absorption 311
"Binding factor" for ACTH 477
Biogenic amines, diabetes 310
Biologic activity of insulin 149
Biosynthesis of insulin 421
Blood glucose, ACTH-secretion 364
– – and LH releasing hormone 403
– – and TRF 58
– in alloxan diabetic mice 151
– – in diabetic rats 2
– – in hypothyroidism 373, 377
– – in maturity-onset diabetics 59, 229
– – in obese mice 144
– – in tumor-bearing rats 18
– – regulation 409
Blood sugar: see blood glucose
B.M.R. 102
Bone development 93
– matrix, calcitonin 296
Bouin's solution 2
Bursa in chicken, influence of thyroid hormones 42

C

C-19-steroids in skin 383
Caerulein, effect on insulin secretion 55
Caging of rats, germ-free and insanitary 44
Calcium absorption in the intestine 59
– fractions in rat serum 104
– homeostasis 300
– thymus 304
– urinary excretion 315
Calcitonin 104
– bone matrix 296
– calcium homeostasis 300
– insulin secretion 60
– medullary carcinoma 407
Caloric restriction in obese mice 144
Capillary permeability 8
Cataglykin 222
– glucose homeostasis 309
Catalase 215
Catapresan, sex-dependent protein 271
Catecholamine, degradation 398
– islet-cell tumor 355
– lipolysis in perfused rat liver 30
Catecholamines 34
– lipolytic role 34
Chicken, hypothyroidism in 39
Chicks, day old 69, 337
Chinese hamster, streptozotocin 426
Chlorpropamide, glucose metabolism in adipose tissue 178
– studies in mice 57
Cholesterol 102
– esterase 206
– in liver 36
– in men 183
– in myotonia 458
– metabolism 380
Chromophobe adenoma 470
Circadian rhythm, protein synthesis 278
Citrate in diabetes 257
Citric acid cycle 77
Clomiphene 388
CO_2, total in plasma of juvenile diabetics 12
Coenzyme Q 1
Comb index 40
Cori's cycle 26
Corpus luteum 206
Corticoid dependence, lipolysis and calcium uptake 195
Corticosteroids and insulin resistance 62
– suppression of growth hormone 463
Corticosterone, effect of thyroidectomy on plasma levels 314

Corticotropin secretion in man 364
Cortisol and glucose metabolism 163
– anti-insulin effect 433
– pituitary diseases 470
– plasma 202, 280
– – and TRF 58
Cortisone, early response of liver 254
^{51}Cr-EDTA, glomerular clearance 8
Cranio-facial disproportions 93
Craniopharyngiome 93
Creatine metabolism 101
Creatinine clearance in cystinuria 51
Cyclic AMP, gastric secretion 226
– – insulin secretion 242
– – isolated rat liver cells 176
– – isoprenaline 229
– – production in adipose tissue 72
– – rat fat cells 447
– – thymus 304
– – uterus 313
Cycloheximide 187
Cyproterone acetate 386
Cystinuria 51
Cytochrome c 1
Cytotoxic effect of streptozotocin 1
Cushing's disease 101

D
Dark islets of duck pancreas 85
Dehydroepiandrosterone in skin 383
Dehydrogenases 41
Deiodination of thyroid hormones 213
2-deoxyglucose and energy metabolism 77
Desmosterol in serum 458
Dexamethasone 202
– and growth hormone secretion 57
Diabetes, alloxan 152, 245
– antibodies to glucagon 224
– biogenic amines 310
– duration, correlation to the ^{51}Cr-EDTA-clearance values 9
– effect on protein synthesis 249
– enzyme patterns in blood cells 107
– experimental 257
– FFA and triglycerides in plasma 439
– glucocorticoids 255
– glomerular clearance to ^{51}Cr-EDTA 8
– glycolytic intermediates in adipose tissue 325
– growth hormone levels in ketoacidosis 317
– growth hormone secretion in juvenile 11
– hypersomatotropism 19
– in India 321
– insulin levels in maturity onset diabetes 229
– kidney function in juvenile 11
– maturity-onset 58
– sand rat 310
– streptozotocin-induced 1
Diabetic mice 331
Diaphragm, insulin binding 150
Diarginine insulin 425
Diazoxide 57
– islet-cell tumor 355
Dibutyryl cyclic AMP, intestinal calcium absorption 59
– – –lipolysis and calcium uptake 197
Diet, carbohydrate in rats 25
– effect on plasma insulin and glucose levels in chicks 69
– high fat in rats 25
Diglycerides in liver 36
Dihydroergotamine 99, 187
2,4-dinitrophenol 1
DIT 501
DNA synthesis, thymus 304
DOPA 128, 341
Ducks, glucagon-producing cells 83
Dwarfism, familial 93
– high growth hormone levels 93

E
EEG-in sleep 463
Electrofocusing electrophoresis, separation of TSH-subfractions 129
Embden-Meyerhof pathway 110
Energy-linked metabolism 107
Energy metabolism in granuloma tissue 77
Enzyme inducers 119
– patterns, in blood cells of diabetics 107
– – in liver 71
Enzymes, glycolytic 110
– gluconeogenic 110
– of drug metabolism 119
– of glucose phosphorylation 83
Epididymal adipose tissue, obese and/or hyperglycemic mice 331
– fat pad 87
– – fat pad, HCS 293
– – – in obese mice 143
– – – oral hypoglycemic agents 178
Epinephrine, effect on hepatic lipids 34
– inhibition of lipid synthesis 176
– lipolysis in mice 331
Erythrocytes, enzyme patterns 107
Estradiol, glucose tolerance in rats 266
– uterine cyclic AMP 313
17β-estradiol-DNA synthesis 273
Estrogenic activity 119
Estrogens, effect on gonadotrophins 288
– formation from androgens 312
– pituitary function 392
Exercise, cholesterol in liver 380
– factor 139

F
Familial dwarfism 284
Fasting 69
– effect in chicks 337
Fat cells 447
– – size 182
– diet, disposal of orally administered ^{14}C-glucose 25
– – in chicks 337
– – increase of gluconeogenesis 29
– – metabolic effects in rats 25
– storage in liver 34
Fatty acids: see also free fatty acids
– – composition of liver lipids in sharks 35
– – gluconeogenesis 171
– – oxydation 1
– – polyunsaturated 34
– – reesterification 20
– – total content of adipose tissue in rats 20
– – turnover 20
Fertility in men 128
Fetal pancreas 232
– – calf 421
Filtration rate (glomerular) in diabetics 10
FFA: see free fatty acids
Follicle stimulating hormone: see FSH
Free fatty acids: see also fatty acids
– – – and growth hormone 187
– – – and TRH 368
– – – active lipolysis during rat liver perfusion 33
– – – effect of nicotinic acid in diabetics 317
– – – effect of sucrose administration on 439
– – – in hypothyroidism 373
– – – increased levels in the perfused rat liver 30
– – – increased synthesis by the liver 33
– – – inhibition of hepatic uptake 33
– – – in muscle perfusion 140
– – – in myotonia 458
– – – in tumor-bearing rats 15
– – – turnover 87
Freezing in situ, pancreas 232
FSH 388
– gonadotrophin levels 288
– in anorexia nervosa 404
– levels following TRH-injection 482
– LH-releasing hormone 403

G
Gastric juice 210
– secretion, cyclic AMP 226
Genetic defect
– in juvenile diabetes and growth hormone secretion 14
– – and small blood vessels of the kidney 14
Gigantism, juvenile 15
Ginglymostoma cirratum 34
Glibenclamide 61
– monoamines 341
Glioma 470
Glomerular filtration 8
– – rate and acromegaly 14
– – – and liver cirrhosis 14
– – – in newly diagnosed juvenile diabetics 11
– – – after hypophysectomy 14
Glucagon 237
– amino acid composition 360
– anion exchange chromatography 223
– antibodies in a diabetic child 224
– crystallization 360
– effect on plasma Mg concentration 48
– gluconeogenesis 171
– immunology 360
– production in cells of duck pancreas 83
– purification of labelled 223
– rabbits, isolation, crystallization and amino acid composition 56
– response, in acromegaly 97
– secretion, regulatory role of glucose 86
– secretion in rats 168

– turkey 360
Glucocorticoids, diabetes 254
– gastric secretion 226
– long term treatment 280
Glucokinase after fat diet 29
Gluconeogenesis, increase after fat diet 29
Glucosamine-1-^{14}C 15
Glucose, absorption after oral administration of ^{14}C-glucose to rats 26
– -^{14}C, disposal 25
– hepatic deposition 409
– homeostasis, somantin and cataglykin 309
– intolerance and glucagon 99
– metabolism 237
– – in isolated pancreatic islets 159
– – and LPH 22
– – in thymus lymphocytes 163
– oxidase, glucose electrode 414
– oxidation in adipose tissue 88
– – in adipose tissue in the presence of β-LPH 22
– – diaphragm of weanling rats 328
– in isolated pancreatic islets 159
– – – oral hypoglycemic agents 178
– -6-phosphatase 29
– – in adipose tissue 325
– – activity in liver 433
– phosphorylation 83
– production by the liver 28
– in rat serum after high fat diet 26
– reduction of plasma magnesium 50
– tolerance, dwarfism 284
– – after longterm treatment with tolbutamide 58
– – impairment in rats after a high fat diet 25
– – relation to oestrous cycle in rats 266
– – test, glycolytic intermediates in adipose tissue 325
– TRH 368
– turnover 129
– uptake 139
– – adipose tissue 178
– – effect of adenine and guanine 225
– urinary excretion during 24 h in juvenile diabetics 12
– utilization in granuloma tissue 77
– – peripheral, in tumor-bearing rats 18
Gluconeogenesis 107
Glucosuria in diabetic rats 2
– in maturity-onset diabetics 59
Glyceraldehyde-3-phosphate dehydrogenase 237
Glycerides during rat liver perfusion 32
Glycerokinase 125
Glycerol metabolism 125
– phosphate in adipose tissue 325
– release in adipose tissue 75
– content of thymus lymphocytes 163
Glycogen deposition in liver 254
– in liver 25
– – – after high fat diet of rats 25
– – – of rats 168
– in tissues 152
– synthesis in tumor-bearing rats 15
– synthetase 29
Glycogenolysis in liver of rats 168
Glycolysis, anaerobic 159
– in proliferating tissues 77
Glycolytic enzymes 77
Glycoprotein biosynthesis 16
Glycoproteins in plasma, perchloric acid insoluble fraction 16
Goitre 43, 102
– thyroid hormones 501
Goitrogens 39
Golden hamster, islet-cell tumor 355
Golgi complex, streptozotocin 349
Gonadotrophic insufficiency 470
Gonadotropins, anorexia nervosa 404
Gonadotrophin deficiency 93
Gonadotrophins, effect of estrogens on levels 288
– glucose tolerance in rats 266
– in urine 386
Granuloma tissue 77
Grave's disease and LATS 132
Growth hormone, amino acids and secretion of 14
– – and acromegaly 97
– – biphasic action on glucose uptake 20
– – deficiency 93
– – disappearance 467
– – effect on bone development 93
– – fasting levels 12
– – following TRH injection 482
– – high levels in dwarfism 284
– – hypersecretion in diabetes 11
– – induction of secretion by L-Dopa 128
– – influence of TRF on secretion 58
– – inhibition of secretion by phentolamine 128
– – insulin like action 222
– – – sensitivity of adipose tissue 87
– – isolated deficiency 284
– – ^{125}J 467
– – ketoacidotic diabetics 317
– – levels during sleep 463
– – LH-releasing hormone 403
– – metabolic origin of elevated levels in juvenile diabetics 11
– – peptic digestion 187
– – pituitary diseases 470
– – rats bearing the MtT-W15 tumor 15
– – response to exercise in juvenile diabetics 12
– – secretion in juvenile diabetics 11
– – in man and dexamethasone 57
– – – in men during stress 57
– – somantin and categlykin 309
– – stimulation of lipolysis 187
– – urine 190
Guanine, effect on glucose uptake 225
Guinea pigs, endocrine pancreas 237
– – insulin immunized 62
– – pancreatic B-cells 349

H

HCS, epididymal fat pad 293
Heart, glucose uptake 225
Hematocrit 70
Hemidiaphragma, glucose uptake 139
Hepatic glucose output 28
– – production 64
Hexokinase 83
Hexose monophosphate pathway 77
High fat diet in chicks 69
Hind limb 139
Human chorionic somatotrophin: see HCS
11-hydroxycorticosteroids, phenformin 417
L-5-hydroxytryptamine 342
L-5-hydroxytroptophane 342
Hyperaldosteronism 65
Hypercalcemia, insulin secretion 60
Hypercholesterinemia in hypothyroid chicken 39
Hyperglycemia following diazoxide 57
Hyperglycemic mice, lipolysis in 331
Hyperinsulinemia, reduction of plasma magnesium 50
– in tumor-bearing rats 15
Hyperlipemic serum 31
Hypersomatotropism, experimental 15
Hyperthyroidism, atria potentials 488
– diagnostic tests 101
– QK-interval 371
Hypertrigliceridemia 439
Hypocalcemia 48
– effect on insulin secretion 60
Hypochlorhydria 210
Hypoglycemia, effect of cortisol 433
– hyperproinsulinemia in subjects 133
– in newborn rats 168
– islet-cell tumor 355
Hypophysectomy 99
– cholesterol ester hydrolase 206
– glomerular filtration rate 14
– in rats 87
– renin-angiotension-system 495
Hypopituitarism 99, 470
Hypothalamus, obesity 328
– electric destruction 328
Hypothyroidism in chicken 39
– in dogs 373
– in rats 377
– primary 93

I

ICSH 388
– levels following TRH injection 482
Immunisation with insulin 63
Immunoassay for insulin 134
Immunosuppressive therapy and insulin resistance 62
Immunotolerance and insulin resistance 62
Imurel and insulin antibodies 62
Inactivation, parathyroid hormone 217
Intestinal bacterial flora 43
Intralipid 31
Intravenous glucose tolerance test 368
– – – – in hypothyroidism 373, 377
Inulin 8
– and iothalamate-J^{125} 11
Insulin action, lowering of cyclic AMP levels 76
– and nicotinate in diabetics 317
– and proinsulin in plasma of subjects 133
– antagonism 148
– – in tumor-bearing rats 15
– antibodies and azathioprine 62
– arterio-venous differences in men 54

– binding capacity 63
– biologic activity 149
– biosynthesis 421
– change in energy metabolism 77
– content of pancreas in tumor bearing rats 17
– – of pancreatic tissue 232
– cortisone 254
– degrading enzymes 133
– immunoreactive 16
– in muscle perfusion 140
– in plasma 151
– iodination 149
– levels in adults 136
– – in children 136
– – in hypothyroidism 373, 377
– – in maturity onset diabetes 59, 229
– – in Nigerian subjects 136
– – in obese mice 145
– – in plasma of chicks 337
– – in pregnant women 136
– – in rats after a high fat diet 25
– – in relation to oestrons cycle in rats 266
– – sulfonylureas 341
– LH-releasing hormone 403
– like activity 139
– – – of LPH 22
– lipolytic system 447
– – oscillations of serum levels 409
– – pancreatic content in chicks 337
– – peripheral release during muscular work 54
– – protein synthesis in the mouse 278
– – reduction of plasma magnesium 50
– resistance 62, 328
– – in acromegalics 97
– – in obese mice 143
– secretion after long-term treatment with tolbutamide 58
– – calcitonin 60
– – in dogs 64
– – dwarfism 284
– – effect of caerulein and pancreozymin 55
– – effect of potassium chloride 64
– – hypercalcemia 60
– – hypocalcemia 60
– – hypothyroid rats 377
– – inhibition with diazoxide 57
– – insulinoma 55
– – isolated islets of neonatal rats 159
– – monoamines 341
– – pancreatic islets 242
– – rat islets 234
– – stimulation after diazoxide inhibition 57
– sensitivity of adipose tissue 87
– to endogenous insulin in rats 25
– stimulation of glucose metabolism in thymus lymphocytes 163
– tolerance test 470
– treatment, glucagon antibodies 224
– – normalisation of growth hormone levels 14
Insulinoma 55, 133
– in Nigerians 136
Iodination of insulin 149
Iodine, absorption in the intestine 47
Iothalamate-J^{125} 11
Islet cells 1
– tumor, diazoxide 355
Islets of Langerhans, influence of growth hormone 97
Isolated adipose tissue cells 293
– A_2 cells 83, 237
– pancreatic islets, acid amyloglucosidase activity 245
– – – ATP measurement 242
– – – fetal, newborn and adult rats 234
– – – glucose metabolism 159
– – – monoamines and insulin release 341
– perfused pancreas of rats 66
– rat liver cells 176
Isoprenaline 229

J
^{131}J-thyroidal uptake 102
Jaw, width in rats 17
Juxtaglomerular cells 493

K
Kanamycin 43
Ketoacidosis, growth hormone levels in diabetics 317
α-ketoglutarate in diabetes 257
Ketone bodies during rat liver perfusion 32
– formation in the perfused liver 171
Ketonuria in diabetic rats 2
Kidney biopsies in juvenile diabetics 8
– function in juvenile diabetics 11
Korotkoff(K)-sound 371

L
Lactat gluconeogenesis 171
Lactic dehydrogenase 78
Legal's test in juvenile diabetics 12
Lethal yellow mice 331
Leucocytes, enzyme patterns 107
LH: see also luteinizing hormone
– anorexia nervosa 404
– LH-releasing hormone 403
– releasing hormone 403
– – – LH and FSH levels in anorexia nervosa 404
Lipid synthesis, inhibition by epinephrine 176
Lipids, composition of shark and rat liver and of rat adipose tissue 36
– hepatic 34
Lipogenesis 22, 71
– HCS 293
– pregnancy 293
Lipogenic activity 22
Lipolysis 22, 34
– cyclic AMP dependend mechanism 73
– effect of nicotinic acid in diabetics 317
– HCS 293
– in isolated perfused rat liver 30
– in rat fat cells 447
– obese and/or hyperglycemic mice 331
– pregnancy 293
– stimulation by growth hormone 187
Lipolytic hormone 22
Lipoprotein lipase 121
Lipotropin 22
– ACTH activity of 23
– amino acid sequence 23
– and glucose utilisation 22
Long-acting thyroid stimulator, familial incidence 132
LPH, active center of the molecule 22
– cleavage with cyanogen bromide 22
Liver cirrhosis 121
– – and glomerular filtration rate 14
– fetal and neonatal rats 110
– glycogen 433
– intermediary metabolism in tumour-bearing rats 15
– intermediates in diabetes 257
– perfusion in rats 30
– phosphorylase 168
– sex-dependent protein 271
Luciferase 242
Luteinizing hormone: see also LH
– – gonadotrophins 288
– – immunochemical estimation in urine 128
– – influence of TRF
Lymphoblast proliferation 304
Lysosomal activation 341
Lysosomes 245

M
Macula densa 495
Magnesium concentration in plasma, effect of glucagon 48
– urinary excretion 315
Malate as substrate 2
– diabetes 257
Malonyl coenzyme A 454
Mammary carcinoma 119
Mash diet 69
– or high fat diet in chicks 337
Medullary carcinoma, calcitonin 407
Melanocyte stimulating hormone 22
Melanotropin 23
Membrane of cells 82
Mercaptopurine and insulin resistance 62
Mesterolone, sex-dependent protein 271
Metformin, B_{12} absorption 311
Metopirone 398
Microangiopathy, diabetic 8
– functional 8
MIT 501
Mitochondria, skeletal muscle 1
Monoamines, insulin release 341
Monoglycerides in liver 36
Monoiodoinsulin 149
Mouse, alloxan diabetes 151
Mouse, bone matrix 296
– isolated pancreatic islets 245
– protein synthesis 278
– uterus 273
MSH 22
MtT-W15-tumor 15
Muscle biopsy of diabetics 8
– metabolism 279
– perfusion 139
Myocardial infarction 183
Myotonia congenita 458
– dystrophica 458
Myxoedema 101

N
NADPH, enzymes for production of 41
Nicotinamide 273

Nicotinate and insulin in treatment of diabetics 317
Nicotinic acid and growth hormone levels 317
Neonatal rats 159
– stage and metabolic changes 69
Nephrectomy in dogs 65
Nephropathy 10
Newborn rats, glucagon secretion 168
New Zealand obese mouse 84
Nigerians, insulin levels 136
Noradrenaline, cyclic AMP production 72
– lipolysis and calcium uptake 197
– urinary excretion 398
Norepinephrine 30, 447
– effect on hepatic lipids 34
– induced lipolysis 30
Nucleotides 73

O
Obesity, glycolytic intermediates in adipose tissue 325
– hypothalamus 328
– in India 321
– in man 182
– pathogenetic mechanism 146
Obese-hyperglycemic mice 85, 143, 245
– mice, lipolysis 331
Oestro-:see estro-
Oleic acid 171
Oligomycin 2
Ontogenesis of enzymes 110
– turnover of phospholipid 493
Ophthalmopathy 102
Oral glucose-^{14}C, disposal after oral administration to rats 25
Oral glucose load, fasting and high fat diet 337
– – – in chicks 337
– – – in rats 19
– – – oscillations in blood glucose and insulin 409
– – tolerance test and hypoglycemia 133
– – – – in Nigerians 136
– – – – in maturity onset diabetics 59
Organ culture, fetal rat pancreas 66
Oscillations 409
Overweight and uricemia 51
Oxaloacetate 6
Oxydative phosphorylation 1
– – in heart homogenates 1
– – uncoupling of 6

P
^{32}P incorporation into ATP 81
Palmitoyl-carnitine as substrate 3
Pancreas, fetal calf 421
– freezing in situ 232
– proinsulin and insulin content 232
Pancreatectomy, dogs 65
– rats 249
Pancreatic B-cells, streptozotocin 349
– insulin content in rats 377
– islets 2
– – isolated A_2 cells 83
Pancreozymin, effect on insulin secretion 55
Panhypopituitarism 97
Parabiosis in obese mice 143
Parathormone, calcium homeostasis 300
Parathyroidectomy 104, 296
Parathyroid hormone 104
– – and intestinal calcium absorption 59
– – inactivation in rat fetus 217
– – in rat fetus 131
– – labelled 217
– – urinary excretion of electrolytes 315
PBI 40, 102
– in rats 43
Pentose phosphate shunt 110
Perfused liver, rats 171
Permeability, capillary 8
– of glomerular capillaries for ^{51}Cr-EDTA 10
Phenformin, glucose metabolism in adipose tissue 178
– reduction of insulin levels 417
Phentolamine 128
– phosphate, inorganic ortho- 1
Phosphodiesterase in adipose tissue 72
– rat fat cells 447
Phosphoglycerate kinase 237
Phospholipids in liver 34
– in myotonia 458
– turnover during ontogenesis 493
Phosphorus, calcium homeostasis 300
– urinary excretion 315
Phosphorylation of glucose 83
– oxydative and related reactions 1
Physical activity, adipose tissue 182
Pituitary dwarfism 93
– function in male rats 392
– response 392
– glucose in chicks 69
Plasma glycoproteins 16
– insulin in chicks 69
– lipids, phenformin 417
– proteins, perchloric acid insoluble proteins 19
– – seromucoid fraction 19
Platelets of the blood, enzyme patterns 107
Polydipsia in diabetic rats 2
Polyphagia in diabetic rats 2
Polyuria in diabetic rats 2
Postheparin lipolytic activity 121
Postmenopausal women, gonadotrophins 288
Potassium chloride, insulin secretion under infusion of 64
Prediabetes in Nigerians 136
Pregnancy, epididymal fat pad 293
– insulin levels in 136
Progesterone, glucose tolerance in rats 266
Progressive muscular dystrophy 101
Proinsulin content of pancreatic tissue 232
– in hypoglycemic subjects 13?
– studies in fetal calf pancreas 421
Prolactin, cholesterol ester hydrolase 206
– effect on glucose utilisation 23
– inhibitor 405
– releasing effects of TRH 405
Propanolol inhibition of lipolysis 33
– islet-cell tumor 355
– uterine cyclic AMP 313
Propylthiouracil 39
Prostaglandin E_1 304
Protein in liver 271
– rich diet 14
– synthesis, effect of diabetes 249
– – – hormonal control 278
Pseudoangiotensin II 210
Pseudohypogonadism 388
Pseudorenin 210
Psoriasis 383
Pyelonephritis 51
Pyruvate as substrate 2
– in diabetes 257
– kinase 237

Q
QK-interval, thyroid disease 371

R
Radioiodine uptake 43
Rat plasma, glucose utilization 142
Rats, alloxan diabetes 254
– bone matrix 296
– corticosterone in plasma 314
– gastric secretion 226
– glucagon secretion 168
– isolated islets of fetal, newborn and adult rats 234
– isolated liver cells
– neonatal 159
– perfused liver 171
– pancreatectomy 249
Radioimmunoassay, angiotensin 210
– glucagon 223
– thyroxine in serum 406
Radiothyroidectomy 39
Receptor binding of hormones 151
Red cell membranes, deiodination 213
Renin, plasma concentration 495
– renal content 495
Reserpine, islet-cell tumor 355
– sex-dependent protein 271
Respiration 1
Respiratory control ratio 1
Ribosomes in rat uterus 395
– protein synthesis 249
RO 6-4563 61

S
Sand rat 310
–– biogenic amines 310
Secretin, antibodies 507
– synthetic and natural 507
Seminal fluid 386
– fructose 128
Seromucoid fraction from rat plasma 15
Sex-dependent protein 271
Sex hormones, glucose tolerance and insulin levels 266
– differences in cortisol effect 433
– – – in insulin levels 136
– – of ^{51}Cr-EDTA clearance in diabetics 9
Sexual maturity, ribosomes of rat uterus 395
Shark 35
Sheehan's syndrome 470
Sheep, parathyroid hormone 315
Sialyltransferase 19
Skin eluates 383

– fold thickness 321
Skull X-ray 93
Sleep, growth hormone release 463
Soluble enzyme activity, protein synthesis 249
Somantin 222
– glucose homeostasis 309
Spermatogenesis 386
Starvation, intermediates in liver 257
Steroidogenesis 126
Streptozotocin 135
– Chinese hamster 426
– diabetes in rats 257
– induced diabetes 1
– destruction of pancreatic B-cells 349
– oxidative phosphorylation 1
– skeletal muscle mitochondria 1
Stress 125
– influence of surgery on growth hormone secretion 57
Succinate 4
– in diabetes 257
Sucrose diet 417
Sugar sensor 413
Sulfonylureas, extrapancreatic effects 59
– glucose metabolism in adipose tissue 180
– insulin secretion in diazoxide pretreated mice 57
– – – in newborn mammals 159
– intracellular monoamines 341
– maturity-onset diabetics 59

T
Tachycardia, hyperthyroidism 488
Tail root, width in rats 17
TBG, goiter 501
TBPA 501
TES 1
Testes, weight in rats 271
Testicular function 386
Testosterone, glucose tolerance in rats 266
– hypercholesterinemic effect in hypothyroid chicken 39
– lipoprotein lipase 121
– plasma 386
– pseudohypogonadism 388
– rats 433
Tetracosactrin 202, 280
Theophylline, effect on phosphodiesterase 74
– insulin secretion of isolated islets 234
– lipolysis and calcium uptake 197
– – in mice 331
Thickening of the basement membrane in glomerular capillaries of diabetics 10
Thymus lymphocytes 163
Thyrocalcitonin (see also calcitonin) 48, 104, 296
Thyroidectomy, calcium homeostasis 300
– effect on plasma corticosterone 314
– rats 377
Thyroid function 371
– – rats 43
– gland, medullary carcinoma 407
– hormones, deiodination 213
– suppression of TRH-effect on TSH-release 508
– secretion rate 380
Thyrotoxic myopathy 101
Thyrotropin, influence of TRF on secretion 58
– releasing factor, influence of oral administration on adenohypophyseal function 58
Thyrotropin releasing hormone: see TRH
– influence of TRH 129
Thyroxin 39
– atria potentials 488
– binding globulin 40
– cholesterol in liver 380
– goiter 501
– physiological levels 380
– radioimmunoassay 406
– therapy, insulin secretion 373, 377
– metabolism 213
Tolbutamide, effect of longterm treatment in maturity-onset diabetes 58
– glucose metabolism in adipose tissue 178
– studies in mice 57
Toxic adenoma 101
Transaminases in serum 40
p-trifluoromethoxy (carbonyl cyanide) phenylhydrazone 3
TRH 129
– analogues 484
– distribution and elimination of labelled 506
– influence on glucose, free fatty acids and insulin in plasma 368
– interrelationships with corticosterone 484
– peripheral effect 484
– pituitary hormones 482
– prolactin releasing effects 405
– suppression of its effect on TSH 508
TRH-^{125}I 506
Triglyceride emulsion, metabolic effect 509
– lipase 72
Triglycerides, effect of sucrose administration on 439
– liver 36
– medium-chain 509
– obese mice 143
Triiodothyronine, deiodination 213
– goiter 501
Triese phosphates 237
Triphenylethylene 119
Tris 1
Tryptophane oxygenase 254
TSH-bioassay 484
– goiter 501
– P^{32}-incorporation into thyroid slices 493
– LH-releasing hormone 403
– resynthesis 484
– suppression of TRH effects by thyroid hormones 508
Turkey, glucagon 360
Tyrosin transaminase, diabetes 254

U
Ubiquinone 1
Uremia 65
– growth hormone 467
Ureteral ligation in dogs 65
Uricemia in cystinuria 51
Urinary excretion, parathyroid hormone 315
– gonadotrophins 386
Urolithiasis 51
Uterus, cyclic AMP 313

V
Valine-U-^{14}C 15
Vanylmandelic acid, urinary excretion 398
Viable yellow mice 331
Vitamin B_{12}, absorption in the presence of biguanides 311
Vitamin D, calcium homeostasis 300

Y
Yellow obese mice 331